Dissertation

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The study of socio-cultural and environmental factors of hypertension in Ibadan : an epidemiological approach

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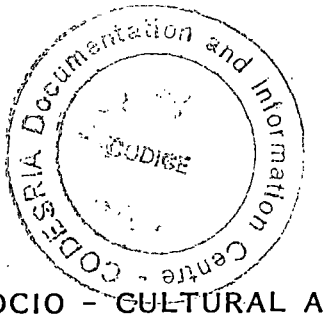

THE STUDY OF SOCIO - CULTURAL AND ENVIRONMENTAL FACTORS OF HYPERTENSION IN IBADAN: AN EPIDEMIOLOGICAL APPROACH

BY

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DEDICATION

THIS WORK IS DEDICATED TO THREE IMPORTANT PERSONALITIES WHO HAVE MADE TREMENDOUS CONTRIBUTIONS TOWARDS MY PROGRESS IN LIFE. THEY ARE:

1. DR. OLUGBEMI AKINKOYE, mni
2. DR. ADEWALE OKE
3. DR. OBAFEMI OMOLOLU.

CERTIFICATION

I CERTIFY THAT THIS WORK WAS CARRIED OUT BY

MR ADERINTO, ADEYINKA ABIDEEN, UNDER MY SUPERVISION.

ZADK3 16/12/91

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To everybody mentioned above and other well-wishers, may the Almighty continue to shower his blessings upon you. Thank you all.

Aderinto, A.A.
October, 1990.

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ABSTRACT

Emphasis over the years have been on the perceived pathological causes as been the sole cause of diseases. However, there has been a growing concern to investigate the role of man's social, cultural and physical environment in disease causation.

This study then investigated the role of socio-cultural and environmental factors in the etiology of hypertension. It was limited to Ibadan, the most populous city in black West Africa.

Data was collected through the survey method. A standard questionnaire was designed, and also supplemented by oral interview. Information was gathered at the University College Hospital, Ibadan. In addition, we visited some traditional homes to get our required number of respondents.

Major findings of the study include the following: females are more hypertensive than males; advancement in blood pressure is as a result of advancement in age; married people are more prone to hypertension; hypertension permeates all occupational groups but more in high class jobs; there is a positive correlation between high social status and hypertension. Furthermore, spatial distribution of the illness reveals that they are most common in

middle-class and upper-class residential areas; reaction to unexpected occurrences also cause hypertension. People that panick, get depressed have high blood pressure. Also, most hypertensive patients don't have time to relax; the Structural Adjustment Programme (SAP)initiated by the government has generated tension which also lead to an increase in blood pressure.

This study is in four parts. Chapter one focuses on Introduction, literature review, theoretical framework and research objectives. Chapter two contains the methodology while data analysis and interpretation form the major discourse in Chapter three. Chapter four, which is also the concluding part, contains summary of findings, conclusion and recommendation.

CHAPTER ONE

INTRODUCTION

Researchers particularly social epidemiologists have found relationship between socio-cultural/environmental factors and the aetiology of diseases. The relationship is more apparent during certain periods and confined to particular environments. For instance, malaria fever has been found to occur less in temperate regions. Similarly, cerebro-spinal menigitis is more prevalent during the dry season in the Northern part of Nigeria. This study falls within the area of social epidemiology.

Social epidemiology has been defined as a method of studying disease and illness phenomena of all types, which is based on the assumption that the cause, distribution and treatment of particular disease syndromes is a result of combined biological environment, social and cultural factors (Scotch, 1963). Oke (1982) defined social epidemiology as an attempt to study or investigate the role of socio-cultural and environmental factors in the aetiology of disease. It is then important to understand the term social epidemiology and the concept disease. Epidemiology deals with the study of occurrences and distribution of disease prevalence among

different population groups whether human or animal and even plants. It involves the techniques for collecting and analysing data on the incidence of epidemics or the outbreak of diseases whether contagious or degenerating. In fact, it covers all types of diseases such as cholera, chicken-pox, siphilis, AIDS, sleeping sickness, hypertension, tuberculosis and worms infestation among others, the population characteristics in terms of the physical, biological, psychological and social factors that facilitate in explaining the prevalence of these diseases and how they can be controlled. Since it emphasizes the relationships between these factors and occurences of diseases or disease syndrome; according to Rogers, it is related to ecology which deals with the study of relationship between man and his environment both as it affects him and as he affects it. Three major interacting factors are of essential interest in epidemiology. These are:

(a) Host or human beings; their genetic inheritance and their degree of resistance or susceptibility to disease conditions.

(b) Agent or carrier of the disease syndromes - this includes micro-organisms, toxic or metabolic conditions.

(c) Environment or surrounding that facilitates or hinders the host and disease agents precipitating or hindering the outbreak of diseases.

The occurrence or non-existence of disease in human or animal population is therefore directly associated with these factors.

The social conception, on the other hand deals with the network of human relationships; organisational and cultural practices or habits that are necessary and sufficient to precipitate or hinder occurrences of diseases. In other words, the traditional beliefs, kinship ties, habits, agricultural activities, social structures among others and group life are important in understanding the social network, for example, living in community or group settings and including other networks of relationships for their survival or existence.

The concept disease can also be misleading if not placed against a definite background or context. It is in this manner that we shall understand disease both in its bio-medical and social concept. Disease can refer to micro-organism such as bacteria, living worms and other organism that infest human bodies or animals causing discomfort which leads to the breakdown, mal-formation of body structures or system and functioning as well as the socio-pathic and psycho-pathic adjustment and adaptation to their social environment. Socio-pathology refers to inability or fear of adjustment to social environment while psycho-pathology refers to

individual differences and the inability to adapt to the psychological environment.

Social epidemiology therefore can be understood as concerned with the social factors more than the physical or biological and the ecological ones in the causes, distributions, spread and treatment of diseases in human population.

The interaction of medical and behavioural sciences in research is among the most potentially fruitful developments in the attempt to provide explanations for, and ultimately cures of disease.

Hypertension for instance affects approximately fifteen per cent of the adult population of the United States of America. In Nigeria, about four million adults representing approximately eighty per cent, have been found to be suffering from hypertension (Osotimehin, 1990). Elevated blood pressure itself is usually not recognised by the affected individual; its sequelae are of primary concern to the medical community. Persons with untreated hypertension have higher than normal probabilities of death from cerebral hemorrhage, congestive heart failure, dissecting aneurysm and atherosclerosis (Page, 1977).

Working from the above precint, the prevailing situation of things in Nigeria calls for examination. To revive the ailing economy,

the Structural Adjustment Programme was initiated to give the economy a more rational outlook by making it self-sufficient. This is not however, without some attendant consequences associated with any programme aimed at restructuring the economy. The employers of labour are forced to lay-off their workers. The resultant job insecurity has produced enormous stress in many homes. This becomes more serious when hopes of getting another job are not there. This condition is likely to induce high blood pressure.

Similarly, one of the steps taken by SAP in restructuring Nigeria's economy is to ban the importation of some essential goods. Many companies have folded up as a result of the measure particularly those whose raw materials can not be sourced locally. The few companies that survived the harsh measure fixed a high amount of money on their products. The economic stress has forced many families to be underfed. Necessary materials can not be procured because they are not within reach.

Equally disturbing in Nigeria today is the issue of social insecurity. Newspapers and other media houses daily report acts of armed robbery and assasination. Lives, properties of individuals are not safe. When individuals live in a state of continual fear of insecurity such as fear of being attacked by robbers, hypertension

is likely to occur. Some other factors as family ties with its attendant problems, menial jobs which is very energy-sapping are also important.

The significance of all these is that they are factors which produce stress which is very fertile for hypertension to thrive on. Most of the problems highlighted above are basically urban-based. This is so because majority of the rural populace are engaged in agricultural activities and commodity prices are relatively cheap. Further, we hear less of the menace of armed robbery in rural areas. Osotimehin (1990) reported that high blood pressure is prevalent in urban population more than the rural population. To be precise, the rate is twelve per cent in urban areas to eight per cent in the countryside.

Other important correlates of hypertension as reported by Osotimehin are that advancement in blood pressure is as a result of increase in age. More importantly, it is hereditary and is high among monozygotic twins than in dizygotic twins. Hypertension is also reported to be higher among the female sex. This is likely to be so because females, being the 'weaker sex' find it difficult to control shocks and reversals. Ironically, one would have expected it to be higher among males because of the immense responsibilities they assume in the home.

Furthermore, alcoholic consumption is said to be positively related to hypertension; there is a strong association between hypertension and obesity. Genetics also contribute to hypertension. This study is considered important because knowing the cause is a condition to finding solutions. Hypertension, as said earlier is a deadly illness and its implications include, among others, renal attack, heart attack, stroke etc.

RESEARCH PROBLEM

Studies in the epidemiology of hypertension have demonstrated the influence of socio-cultural/environmental factors. The contemporary Nigerian situation especially within the context of SAP has increased within the prevalence of these socio-cultural and environmental factors which have been associated with hypertension (Scotch 1963; Kahn 1969; Cassel 1970).

The present restructuring of the economy has had effects on its citizenry. As earlier indicated, the prevailing situation of things have brought about a number of consequences. Notably are job insecurity, social insecurity and the high price of commodities. These have resulted into a number of illnesses.

This study will focus on hypertension - one of the illnesses that are associated with numbers of factors among which are anxiety, emotional disturbance, stress etc. It can also be called high blood pressure. It is in this light that we will like to place emphasis on the factors that account for the illness. We want to know the role of socio-cultural, environmental factors in the aetiology of hypertension. We will also try to know whether hypertension is more prevalent in some areas than others and the factors that account for the disparity. More importantly, one would like to know whether the illness varies according to characteristics such as sex, age, income, occupation etc.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

In this chapter, the intent is to review prior works illustrating studies in social epidemiological research.

It is well known that practising doctors hardly ever pay serious attention to the possibility of social influences in the aetiology of illness. But inspite of this, available evidence suggests that social processes play significantly important roles in the aetiology of both physical illness and mental disorders.

Sctoch (1961) carried out an epidemiological study of hypertension in two Zulu communities. Scotch sees the rural communities as undergoing no rapid social change and very stable. He also observed that they are poverty - stricken and that the essential elements of their social structure are still intact. The urban communities in contrast are generally unstable with no social structure as such. Therefore, Scotch found a higher prevalence of hypertension in urban compared to the rural communities. He describes the situation of the urban Zulu as anomic and attributed this to a breakdown of the traditional family, poverty and urban slum-life. Scotch asserted that the role strain of women, loss of status for the aged, the frequent necessity for women to become the head of the family weakens family ties. In conclusion, the

study further revealed that the high prevalence of hypertension was attributed to White-Black relationships; the Blacks are accorded lower social status and made to feel inferior, which systematically negates their cultural identity and goals. They have acculturated white ideas and goals and have little or no opportunity for direct expression of frustration and hostility.

Furthermore, the analysis of the data from the two Zulu communities revealed a number of socio-cultural variables which discriminated between hypertensives and non-hypertensives. In each community, Scotch (1963) observed

> the patterning of the significant variables in the city in the present study suggest that urbanization, or even culture change in general, though frequently stressful, is not enough to explain hypertension. It is not simply a case of change but rather of success or failure of change. The total data indicate that the former are not able to meet or adapt to the demands of urban life, whereas, the latter are. Most of the variables associated with hypertension are related to social conditions which lay the groundwork for non-adaptive behaviour patterns for urban-living. Thus, the urban hypertensive was likely to live in an extended family, have a lower income, resort to bewitchment to explain illness or misfortune and have a large number of children. In general, the reverse was true of the non-hypertensive.

Also, Marmot (1985) studied the relation between psychosocial factors and blood pressure and concluded that the prevalence of

hypertension varies by social class and ethnic group and increases with acculturation from rural tradition to modern societies. One possible explanation for this, Marmot contends, is the attended psychosocial changes. A variety of stress management techniques have been shown to lower blood pressure, adding weight to a stress hypothesis.

Correspondingly, Svensson (1983) concluded from a study of young persons and essential hypertension in Sweden that his findings are consistent with the position that persons in the early stages of essential hypertension live in a state of essential tension. Igun (1988) therefore contends that it is important for sociology to document the circumstances in which these kind of responses tend to occur.

Cassel (1964, 1970, 1970[a]) and Henry and Cassel (1969) are major proponents of the importance of the influence of structure manifesting itself as a disease. They find, for example, that even in such varied disorders as tuberculosis, Schizophrenia, hypertension and suicide, culturally produced stress appears closely associated with the onset of pathological state. Henry and Cassel suggest that hypertension seems to occur in societies where there have been recent changes in the social structure. Changing norms create

structural situations in which the individual is confronted by a blocking of aspiration or an inability to adjust. The individual is faced with situations which produce chronic psycho-social, and probably physiological, stimulation potentially resulting in behaviours such as hypertension. The work of Walker (1973) in South Africa is also supportive in this regard. Syme et al (1966) and Ostfeld (1967) also support the notion that structural situations produced by the social environment are significant in cardio vascular disease.

Using race as a structural characteristic, the National Center for Health Statistics (1964) reports that blacks have about five mm Hg higher systolic and diastolic pressure than whites. Further, they report that hypertension is inversely associated with occupation (N.C.H.S; 1966).

Other scholars as Kahn and French (1970) endorse the idea that social stress resulting in disease is precipitated by structural changes ranging from civilization (Lowenstein, 1961), cultural incongruity (Tyroler and Cassel, 1964) to status incongruence (Kasl and Cobb, 1966).

Kasl and Cobb (1971) asserted that discrepant hierarchical levels of structural variables (Status incongruence) correlated

highly with both physical and mental impairment.

The general conclusion to be reached is that sociologically or situationally defined Structural characteristics which are potentially either stress producing or result in social change can produce an increased blood pressure.

Stahl, Grim, Donald and Neikirk (1975) opined that there are two problems with the above interpretation. One is that researchers using a psychological orientation have mounted a compelling argument for the relationship between their conceptual tools and the prevalence and/or incidence of the disease and two, little role has been given to the mediating influence of cognition.

As with sociologically implicated factors in hypertension, the use of Structural variables in the psychological approach to social epidemiology is also important. They include the characteristics of personality and hostility. A good deal of literature in this category deals with the element of adaptability or coping (Lazarus, 1970) as demonstrated by individual's response to various situations. Often times, the fact that there is a lack of an adequate or learned adaptive process as Sells (1970) posited, can itself be stress-producing. Where these responses are chronically-lacking, Strain reactions, such as elevated blood pressure, may be expected

to occur. However, as Stahl et al (1975) asserted, much of the work in this area tend to stop before examining the long-term effects of adaptation or coping.

Ostfeld suggests that the following deleterious behavioural situations can be categorized as stressors.

(1) Outcome of important events in the lives of individuals is uncertain

(2) That flight or fright are inappropriate mechanisms for helping to determine such an outcome.

(3) The outcome will be dependent upon constant vigilance on the part of the individual's concerned.

These events or behaviours involve overt cognition on the part of the individual experiencing them. The cognitive ambiguity of an event or the vigilance demanded by anticipated or real events are concepts which can effectively be called Structure. That is, while these are reactions to real or potential external events, they constitute a form of structure since there is, in turn, a potential behavioural reaction to them.

A good deal of research bearing on social psychological correlates of hypertension deals with the 'hypertensive personality'. Insofar as personality includes "the ever-changing organization,

within the individual, of abilities, attitudes, beliefs and motives which contribute to the individual's reaction to his environment (Wrightsman 1972) then the personality of the individual must be considered as a significant structural characteristic contributing to an explanation of behaviour. That is, personality is a characteristic which the individual "brings" into the situation and which must be considered to understand later behaviour.

Osfeld and Lebovits (1960) and Ostfeld et al (1964) describe behavioural responses associated with heart disease in terms of personality traits. Using the Minnesota Multiphasic Personality Inventory (MMPI) and the sixteen personality factor questionnaire, Cattell et al (1950) found that persons who express undue concern over 'body functions' and develop somatic symptoms as a way of resolving emotional conflict present with heart problems at a greater rate than do others. In addition, there is a rather extensive literature relating various personality characteristics which have been associated with hypertension (Alexander 1950, Dunbar, 1939, Alexander 1939, and Saul 1939).

It is perhaps, in relation to psychiatric disorders that social and cultural factors have been most widely shown to play important roles in actiology. Social and cultural factors interact with biological, environmental and personality variations in the development and

natural history of psychiatric disorders.

Igun (1988) contends that the clinical manifestations of psychiatric disorders are probably a function of individual's constitutional predisposition. But life experiences which is a function of the social and cultural environment definitely determines the nature of psychological conflict to which individuals are exposed. Culture influences both the nature and perception of stress and also the kinds of response that are habitually utilized by members of the particular culture. Igun further reports that stress may be in the form of a single passing episode or life event such as natural disaster; it may be intentional and long drawn out such as in concentration camps; and it may be inherent in the life cycle or in the life style. Whatever its nature, it probably sets in motion in the individual a series of emotional reactions of biological origin such as fear, anger etc. The effort to control these may result in susceptible individuals in maladaptive behaviour patterns.

These effects as Kiev (1972) observed may not necessarily go away with the removal of the stressor. Persistent stress triggers chemical or neurohumoral changes in the individual's highest integrative centres similar to psychosomatic conditions as

in peptic ulcer.

However, according to Igun (1988) cultures differ in the kinds of stresses that are commonly encountered by members. The conflicts that are inherent in particular cultures are the precipitants of psychiatric disorders in vulnerable or susceptible individuals. Culture is, among other things, also a system of psychological defences related to ego functioning. Therefore, Kiev (1972) asserted that the availability of belief systems and rituals for the reduction of tensions is an important factor determing how stressful cultural pressures will be. It is in a like manner that Montagu (1961) reported that conflicting values are minimal in those cultures that provide institutionally sanctioned means of expressing aggression, reducing anxiety and supporting dependency needs.

Tokuhata and Steiman (1961) have also aptly demonstrated the implications of cultural change for mental health. Similarly, Burgess (1960), Lemert (1962) have also clearly shown that the prevalence of psycho-somatic disorders are related to a variety of socio-cultural factors. The importance of socio-cultural factors in psychiatric disorder was further supported by Leighton et al's (1959) study in Nova Scotica's Stirling county. Their study concluded that community disintegration fosters psychiatric disorder.

In the same vein, Abramson's (1961) study also supported the fact that rapid social change is a source of disequilibrum and therefore a major contribution to disease. Abramson's study focuses on the health implications of intergenerational conflict in families undergoing rapid social change. The data revealed that ill-health is associated with incongruity between the traditionalism of daughter and mother. He asserted that where the mother was traditional, compared with other mothers, there was more evidence of ill-health among girls who were relatively modern than among those relatively traditional.

Myers (1966) was also consistent with the above. According to him psychosis is a severe emotional disorder characterized by disordered thinking, delusion, hallucinations, and frequently by bizarre behaviour. It occurs in relatively immature personality Structures which are usually manifested in situations of rapid social changes when the patient experiences discouragement and stress. Oke (1980) believed that most psychotic reactions are reversible in the acute stage with proper social environment or proper care. He went further

> Even in the chronic stage, psychotic reactions can be modified and improved. A chronic psychotic when neglected and mishandled is apt to enter a deteriorated stage with considerable personality disorganization.

Myers (1966) further asserts that Schizophrenia which is the most common form of psychosis represents a maladaptive reaction to stress and anxiety of the external world in which the individual withdraws from inter personal relationships and reality, substituting in their place an inner, autistic world. He also regarded neurotic disorders as psychogenic disorders. They consist of a variety of symptomatic emotional disorders and are often less severe than the pyschoses. Myers believed that the neurotic probably had a greater degree of security in his formative years than the psychotic and as a result, he has greater ego strength and is better able to cope. He further contends that neurotic reactions are also precipitated by an intensification of anxiety or by weakening of the defenses against anxiety.

However, Oke (1982) asserted that heredity as a major aetiological factor in emotional disorders is rather weak except for some rare forms of brain disorders such as cerebral lipoidosis that are associated with psychotic manifestations. he emphasized that man's biological functioning and his social interactions are merely different aspects of the same entity; each strongly affects and is affected by the others.

Spodick (1966) in an analysis of cardiovascular diseases, conceded the idea of interdependence of biological, psychological and socio-cultural factors on the state of health. He confirmed that socio-cultural and psychological factors play an important role in the aetiology of the disease, particularly in the manifestation and management. He observes that some patients who believes that they have heart disease often complain of brief sharp pains in the chest which they often localise well to the left of centre because of the common believe that the heart is located there.

Nevertheless, Oke (1982) contends that although heart disease can cause the type of pain, the situation is not common in organic conditions. He further asserts that palpitation which is the consciousness of the heart beat usually experienced at night, is a common psychogenic complaint.

Spodick (1966) believes that most patients with mild forms of heart disease do not require active treatment but necessary it is to put the heart at rest. Psychic rest is often recommended not only because the manifestations of heart disease can be provoked by psychic trauma, but the laying down in arteries of atherosclerotic, cholesterol-filled deposits may be accelerated by psychic stress. This shows the influence of socio-psychological factors in the general

management of health disease.

Hollingshead (1961) gave a rather general contribution to epidemiological knowledge. He looks at ways in which social scientists could contribute to the understanding of the relationship between socio cultural factors and schizophrenia. His work involved methodological and conceptual issues which students of epidemiology will find interesting.

Suchman (1960-61) also in a general discussion noted that the definition of an accident varies by culture and sub-culture. He also gave several models for the study of accidents. Newman (1962) and Pollack et al (1960) are other scholars who contributed to our knowledge of social epidemiology. Newman reported that some particular nutritional syndromes are correlated with ecology while Pollack et al identified various ways in which the presence of cardiovascular disease might be related to socio-cultural factors.

Apparently, a major challenge to human health in Africa comes from the diseases that arise from the socio-biological environment of human settlements (Oke, 1982). In similar vein, Zelleke (1962) describes an attempt to eradicate malaria in Ethiopia and concludes that the basic reason for the underdevelopment of fertile areas for agricultural purposes in Ethiopia was the existence of malaria which affected about 60% of the land surface.

Most of its fertile valleys and plains were actually or potentially malarious. The introduction of new settlements, as Zelleke contends, resulted in the protection from malaria of some 500,000 people now residing in the area.

Oke (1982) reviewing Mozden (1966) on the causes of cancer reveals that environmental factors play a major role in the development of malignant disease. The analysis gives lucid and convincing instances of industrial and occupational cancer. He related the story of cancer of the lung in the Erz Mountains of Europe. In the Sixteenth Century, a disease of the lung was a common phenomenon among the miners. A detailed investigation revealed the carcinogenic agent in the environment of the mines that was responsible for the high incidence of lung cancer which arises in the bronchi. The analysis further revealed that arsenic, a carcinogenic agent, causes skin and lung cancer among workers in tar and oil industries. Creosote oil and carbon black have been associated with lung cancer. In most modern societies, measures are employed to protect workers against industrial hazard. Mozden (1966) similarly observed a high incidence of skin cancer among North American cowboys, Argentine ganchos and sailors every where. This is attributed to sunlight, especially among people

with light skin.

Meyer and Haggerty (1962) also give credence to the influence of socio-cultural factors in illness causation. They studied streptoccoci infection in fifteen middle class families in Boston, over a period of one year. The families had two or more children and throat cultures were made on all of them every two or three weeks and at times of any obvious throat infection. Acquisition was defined as the detection of a new type of streptoccocus, and illness by clear clinical signs. 21% of the cultures were positive for the streptoccoci; but only half of the acquisitions were associated with the illness. By means of the regular three-weekly interviews and diaries kept by the mother, life events that disrupted family or personal life or caused events and medical measures, particularly when comparing the two weeks before and two weeks after acquisition of streptococci or overt illness were recorded. Streptococcal illness and streptococcal acquisition without illness, as well as non-streptococcal respiratory infections were about four times as likely to be preceeded as followed by a distressing life event. The level of chronic family stress' was also recorded, based on judgements on functioning in seventeen areas such as relation to legal institutions, the

relation of the married couple to each other, and adequacy of income. This study therefore shows that life events play some causal role in streptoccoci infections and illness. However, Igun (1988) in his critique observed that the study fails to trace the link between chronic family stress and extra-family societal processes and factors and between life events and larger societal processes.

Also stressing life-events, Langer and Michael (1963) in their study based on 1,600 inhabitants close to the center of New York and using childhood and adult biographical factors as a combined stress score found a consistent association with psychiatric disorder. They concluded that life history events built up with concommitment increasing impairment and that there is no single experience that by itself, automatically brings on mental disorder for the person. The stress score combined past influences such as parental physical and mental health, childhood health, a broken home, parental quarreling and disagreement childhood economic deprivation, and the perception of parental character, and present influences such as work worries, socio-economic worries, the adequacy of inter-personal affiliation and marital and inter-personal worries.

Similarly, it has been widely hypothesized by a variety of Societal analysts from Durkheim (1897) to Toffler (1970) that execessive social mobility is harmful for one's mental health. Social mobility has been defined as the process by which individuals move from one position in the status hierarchy of society to another (lipset and Bendix, 1974). In Western societies, mobility between social classes is the most important type of social mobility, although other types (e.g cultural or geographic) have been studied. It invloves changes in life style and culture (Brown 1965, Martras 1975). The socially mobile individual may have inappropriate expectations for his own and others behaviour' expectations regarding his own behaviour. Mobility of this sort distrupts interpersonal relations (Whyte 1965) and also involves life events which may be stressful (Dohrenwend and Dohrenwend 1974).

Dubos (1968) also has a facinating account of the way disease has been influenced by social changes. The Manchurian plague at the turn of the century was brought about by the intensive hunting of marmots, which in turn was promoted by increased demand for their fur following changes in women's fashion in Europe, the porphyric person shows disastrous

reactions to modern drugs such as barbiturates and so on.

Furthermore, while laying emphasis on social factors, Igun (1988) contends that in most models of disease, social factors are recognized as able to produce agents that cause disease and illness or increase the chance of people coming in contact with pathological agents. An example of this was found by Dubos (1965) study on eating habits and illness where the related high consumption of smoked mutton to high incidence of stomach cancer among the Irish and social symbols. For example, school children who smoke because of its symbolic value in their peer group run the risk of lung cancer. However Igun (1988) observed that the identification of the fact that social factors influence the consumption of alcohol, cigarrette smoking and promiscuous sexual habits which are implicated in their diseases, lung cancer and veneral diseases respectively, may be a contributing factor but it is very limited. The contribution is limited by the fact that the group of illness identified are caused by physiological,biological and chemical processes in which social factors play no obvious role. Therefore according to Igun (1988:)

> the medical Sociologist cannot therefore rest content with the identification of these social factors. His contribution must go deeper and be more fundamental if he is to be of much relevance.

In like manner, Groven et al's (1962) study suggest that emotional and perceptual factors interact with physical agents to produce disease. His study was on monastry Trappists and Benedictine monks. It is well known that high level of Cholesterol in the blood is related to diet, being high among persons who consume a lot of saturated fats. In the study, it was found that vegetarianism is positively correlated with higher level of blood cholesterol. He found out that the Benedictine monks who were vegetarians were shown to have a higher level of blood cholestrol than the Trappist monks who were completely vegetarians. Unexpectedly, the study found the incidence of coronary heart disease to be the same among both groups of monks and lower than for the male adult population outside monasteries. Given the higher level of blood cholesterol among the Benedictine monks, one would have expected a higher incidence of Coronary heart disease among them. The study suggested that the emotional response of the monks to the environment is a complicating or intervening factor. The implication of this finding is that for physical factors to produce disease, they must interact with perceptual and emotional ones. Thus, the

high rate of hypertensive health problems found in modern society is seen to be the result of the interplay of dietary ones such as the high rate of consumption of saturated fats and stress of modern living.

In a study of rheumatoid disease, king and Cobb (1958) used three questions known to relate reasonably well to the presence of the illness. 200 of a sample of 1,323 person in Pittsburgh were identified as having rheumatoid arthrits. They calculated the percentage of rheumatoid arthrits in terms of a number of simple demographic measures and found out that there were differences for men and women. For example, among women 39% who had little education compared with 10% who had more education, had rheumatoid arthritis. For women, 4 or more children were also highly related to the presence of arthritis. The authors go on to report that for persons with little education increased income is associated with a greater probability of rheumatoid arthritis. But at the other end of the educational scale, the rate was higher among persons with low incomes. Some interpretive comments are offered by the authors. For example, for women the crucial factor may be the pressure of work and in a society that puts high value on non-work activities.

Gordon et al(1968) have related the paradoxical findings of king and Cobb concerning education and income to Durkheim's notion of anomie, namely that under conditions of unanticipated prosperity or economic depression the norms that generally govern behaviour no longer apply, and that

> well educated persons anticipate and more trained to handle high incomes, while poorly educated persons anticipate and learn to hire within low incomes. Deviation from the expected income in either direction tends to produce anomie and anxiety (1968:51.)

Concommitantly, Strole et al (1962) in the MidTown Study found that 23% of a sample of 1,660 inhabitants close to the centre of New York were considered Psychiatrically impaired in the first report. In the report, mental health in the metropolis, a series of demographic - like variables are related to the prevalence of psychiatric disorder. They cover age, sex, marital status, parental and own socio-economic status, generation in the United States, rural - Urban origins, and religious affiliation. Socio-economic status proved to be much the most important measure. The second volume, reporting the study, goes further and relates the presence of psychiatric disorder to factors that are part of the biographical experience of the

individual (Langner and Michael, 1963)

Correspondingly, in a study based on the analysis of death certificates, widowers in England and Wales showed a 40% greater mortality rate in the first six months of bereavement compared with married men of the same age. Young, Benjamin, and Wallis 1963).

Rees and Lutkin (1967) in a survey of the relatives of 90% patients in semi-rural part of Wales showed that 4.8 per cent of the close relatives of the dead person died within a year of bereavement compared with 0.7 per cent of the relatives of comparison group of non-bereaved persons.

The greatest increase was in widows and widowers. After the first year, mortality rates fell of sharply. The mean age of those dying was somewhat lower than in the population as a whole. The authors concluded that there is a group of relatively young persons (with a average of 65 years) that appears to be particularly at risk in the first year of bereavement. While the main effect is over within a year, there is possibility of an influence over an even longer period (Brown, 1976). For instance in a study of suicide, Bunch (1972) found a greater than expected number of suicide deaths among those bereaved for one to five years; and

there is plenty of evidence that early loss of parent has a perceptible influence on subsequent rates of psychiatric disorder (Birchinell 1972, Granville-Grossman 1968).

Read (1966) in her study of the incidence of bilharzaiasis in parts of Africa observed children or younger age groups than adults in Egypt. The high incidence of the disease was attributed to the opening up of canals to irrigation agriculture. She therefore attributes the prevalence of the disease as due largely to the Socio-cultural factors which involved contacts with contaminated water such as bathing, drinking etc. that precipitated the occurrence of the disease.

Bilharziasis or schistosomiasis is a serious irritating disease caused by small worms belonging to group of parasites called flukes. There exist about four different types of bilharziasis but the major two are Urinary and Intestinal schistosomiasis. In other words, schistosomahaematobim and schistosoma - Masoni. Their life cycles involve man as the primary host and snail as the secondary host or the intermediary host. Two different types of snails are associated with the causes of Urinary and Intestinal schistosomiasis. The first category known as bulinus - Globosus and the second biomphehila - pheifferi. This disease has been

reported prevalent in regions of Africa, Middle-East and Eastern part of South America. The eggs of the parasites are passed out in faeces or urine of infested host. It develops into lava and swim freely in fresh water before getting in contact with the snails. In the fresh water snails, they multiply and release large numbers of freely swimming lava that can penetrate into the skin of persons via contact with the fresh water. Once in man, the lava find their way into the Urinary bladder or blood vessels of intestine. The females are egg - laying machines and lay their eggs continuosly in the host and can last as long as twenty-five years in some patients. The eggs are again excreted either through faeces or excreta or adjacent organs of the genito-Urinary system. In the advanced stages of infection constant passage of blood in Urine or even faeces is noticed. It is also characterized by contracted bladder inducing difficult in passing urine or waste products, likewise in the case of faeces or excreta. This is followed by loss of appetite, loss of weight, abdominal pains etc. Bilharziasis is often considered a disease of rural areas where frequent contact with streams exist due to their agricultural or cultural practices and the absence of pipe-borne water etc. It is also a disease associated with people living

around artificial lakes, irrigation canals, stagnant water, ponds etc known as viable sources of infection which may contain large numbers of lava schistosoma. Schistosomiasis incidence through social-epidemiological surveys has been reported rampant in Egypt because of the construction of the Aswan Dam likewise in Ghana due to the construction of the Akosombo Dam and other rural areas due to the agricultural activities of the people and cultural practice that necessitates contact with water from streams or stagnant water.

Similarly, Waddy (1962) studied the case of tripanosomiasis among people of the forest regions of Africa and attributed this prevalence as due largely to their cultural practices and ecological features that norture and harbour the growth or development of Tse-tse fly, the caussative and the transmitter agents as well as human beings assist vectors and victims. The disease is also known to affect cows, hence it is difficult to rear cows in the South of the forest zones of Africa. Sleeping Sickness as it is also known is a disease of low onset like river blindness. The disease caused by an insect known as Tse-tse fly which exist mostly in dense vegetations. Human agents or carriers of the disease results from contact with water and Tse-tse fly while

crossing, bathing or washing in streams, ponds or lakes of dense forest regions where these tse-tse flies exist in close proximity to water so that an infested traveller can start a chain of epidemic along his route since the fly can bite a victim, attach itself to that victim, and later detach to attack another person in the process of social interaction.

To further ascertain the influence of socio-cultural, environmental factors in the aetiology of diseases, Lambo (1955) conducted a survey among the Yorubas of Nigeria to identify the cultural elements in the aetiology of Paranoid Psychosis among ARO patients drawn largely from the Ijebus and the Egbas. Paranoid Psychosis refers to a degenerative state of relation or fear of persecution. It is also known as Hypochondriscal relational associated with mental disorders. It's origin occurence and distribution has been attributed largely to cultural pressures or Culture Shock more than the biological and Psychological factors. A paranoid psychotic patient could therefore be socio-pathic or psycho-pathic. Both cases mean inability to adjust or adapt to socio-cultural environment due to peculiarities of personality Structure, Socialization, susceptibility, among others. Before Lambo's case study on the role of cultural factors in paranoid Psychosis among

the Yoruba tribe, several other works had been conducted on the influence of cultural factors in aetiology of mental illness. Such studies include those of Gordon and others. Lambo therefore conducted a similar study among the Yoruba tribe of Nigeria to identify the cultural elements in the aetiology of paranoid psychosis. The main premise of his argument and research endeavour was that Man as a social being is subjected throughout his entire individual existence to systematic cultural pressures which reinforce or intensify, elaborate or suppress his psycho-biological potentialities in a way which not only rebuke the false belief in the uniformity of human behaviour but reveals also his most extreme types. In other words, Lambo demostrated in his study that cultural factors more than sociological or constitutional ones play an essential role in human problems. To Lambo therefore, there exist a relationship between mental and cultural process or the brain - that psychosis arises from cultural beliefs and practices that generate hypochondriasis, that delusion resulting to mental illness. According to him (1955:23-66)

> the yoruba people, it appears that health, security and good fortune are constantly been threatened or destroyed by various human and spiritual forces abound in the Universe.

> Children die, crops fail, sickness comes, poverty, disabled, and luck eludes one. Some of these is caused by the anger of gods, some by destiny and some by people who ellicit the aid of evil spirits. Although in this study, more than half of the people sampled listed themselves as moslems while others have acceptated Christianity in their various forms and denominations available; almost no one completely rejected the Yoruba beliefs and many cling to them as paramount trust.

His findings reveal that patterns of Psychiatric disorder among the Yorubas are closely related to other pattern identified in Euro-American culture especially among the literate Yorubas. Lambo's study has thus demonstrated the role of cultural factors and Psychiatric stress of mental disorders known as Paranoid Psychosis inherent in the Yoruba tribe of NIgeria.

Another study which was conducted by Laghton and Lambo (1960) on Psychiatric disorders among the Yoruba also reveals similar findings as that of Lambo (1955).

Furthermore, scholars have discovered a relationship between socio-cultural, genetic and environmental factors in sickle-cell anaemia. The disease sickle cell anaemia is transmitted by genes from parents to their children. It is therefore a genetic disease. Most researchers have attributed its aetiology as due largely to

socio-cultural factors. These factors were responsible for the growth, development and spread of sickle-cell anaemia in areas which were most affected. The genetic trend of the disease has been attributed to high incidence of malaria epidemic that result to anaemia conditions of those most severely affected. This occured as a result of the destruction of the red-blood cells and their vital functions to the body. Individuals with the sickle-cell anaemia traits therefore pass it to their generation. The disease has been discovered mostly around tropical zones of Africa especially in West African sub-region and other parts of the world espeically China, India, Phillipines and other parts around the Mediterranean sea.

Allison (1960) a british geneticist has suggested that there existed relationship of sickle-cell malaria infestation and incidence of sickle-cell anaemia because the causative agents Plasmodium falciparum is common in regions that have been heavily infested by malaria epidemic. Allison and Clyde (1961) later examined blood from West African children and found that carriers of the sickle cell trait are relatively resistant to infection with the plasmodium falciparum, the causative agent of tartian malaria. As more data came from various regions, it became evident that

the genetic trait for the disease is found quite frequently in regions that have in the past been infested with malaria just as sickling. Motulsky (1958) reported an incidence of more than 20 per cent in Southern Congo (Zaire) and over 10 per cent in the rest of the country. In West Africa, the incidence of the trait is usually between 20 and 30 per cent, but lower in South-Eastern Liberia and Northen Ghana. In East Africa, the variations according to Harrison et al (1964) are more extreme. The Masen of Kenya have vey little sickling, while it reaches 40 per cent in the Amba on the slope of Mount Ruwenzori. The disease is commonset in the Sahara and south of the Zambesi. In Sardinia, the frequency ranges from three to forty-eight per cent but very rare as Oke (1980) contends in Southmost Africa and the highlands of Ruanda and also in Greece.

Livingstone (1960) has also pointed out some of the cultural factors responsible for the existence and spread of the disease in West Africa. He attributed it to the slashing and burning agricultural practices among others that provided mosquito with breeding places and make man its obvious victim. Before the slashing and burning, these areas were thickly forested region with a lot of animals existing therein. The initial host for the

mosquitoes were these wild animals, but due to the land clearing and other agricultural practices, their natural habitation was disorganized, consequently they disappeared. The mosquitoes therefore descended on human beings with the malaria parasites leading to the epidemic of malaria of the affected areas.

Correspondingly, a prevalence of onchocerciasis or river blindness was reported in many parts of Africa. Onchocerciasis is transmitted by a small insect known as Simulum Damnosium or black flies. The female black fly feeds on blood of this victim so that when it bites, it transmitts the lava into the person on whom it feeds. Once in the human host, the lava develops into long thread-like worms. These worms live up to fifteen years in the victim and multiply into millions of embryo that can invade the skin and eyes. The victim usually goes slowly blind. Black fly lives mainly around the areas of fast flowing water that is rich in oxygen and nutrients. In the black fly, the worms develop at a temperature of about 18° centigrade or above, hence the disease can be transmitted in Circumstance existing in tropical regions where there exist high temperature and fast flowing rivers. Because of the heat or high temperature, farmers in the area walk almost naked exposing their legs or waist. Consequently, they are

massively attacked by black flies. Social epidemiological surveys in the upper basin of Volta River have reported or indicated a number of river-blindness victims estimated at over a million. Many other people about thousands in number had also gone slowly blind. Margaret Read's study of river blindness among the people of Savannah areas in Africa attributed this prevalence to farming techniques and cultural practices of the farmers. She concluded that because of the erosion and run-off rain water, rocks start to appear and black flies start to breed in large scale in these areas - Consequently affecting human beings leading to the incidence of onchocerciasis has been reported around Abuja but the problem has been taken care of. A special onchoceriasis control programme has also been launched in Republic of Benin, Ghana, Cote 'd Voire Mali, Niger, Togo, Bourkinna-fasso. These are the mostly affected societies of Africa.

The influence of socio-cultural factors in the origin of illness or disease is further given credence in the Gezira plain of Sudan. We shall relay in a story-like form the influence of culture in the development of malaria in the region. Gezira is a geographical region which lies in south Khartoum between white

and blue Nile in Sudan. It is a sparsely populated and a semi-arid region of sudan. Ho wever the Complexities of Senai Dam made it possible for large hectares of land fertile enough for farming and other agricultural activities. Due to the improvement in farming conditions and economic buoyancy or boom, the living conditions of the people especially the farmers improved. Consequently new migrants were attracted. Within a short period of time, it became densely populated and one of the most prosperous agricultural regions of Sudan. Hospitals, clinics, schools, colleges, health centres, welfare facilities and other social ammenities were provided. Initially the fertile lands were exclusively planted with cotton, the region's cash crop known for its superior quality. This crop permitted simple and effective mosquito control method or measures. Hence peripheral regions were left to dry out after very few days of cultivation. The time required for mosquito to lay their eggs, hatch and develop into lava were not allowed. This was accompanied by effective treatment of few malaria cases which kept the disease under effective control. Gradually, Secondary cash crops were introduced such as millet, wheat, groundnuts, rice etc. which meant that the periodic drying outs of the canals and peripheral regions had to be stopped or

abandoned so that the lava of anopheles popularly known as Gambia, the principal malaria transmitter mosquito in the region could develop and reach maturity.

In 1950, during a season of heavy rainfall, malaria epidemic began spreading all over the region affecting almost the entire population so that more than half of the labour population were affected. They were infested by plasmodium falciparum, the predominant parasite in the region causing the severest form of malaria. As a result many people died and crops were left unharvested. Economic loss of about 10 million dollars was reported. This marked the beginning of the malaria epidemic and its transmitting agents - the anopheles mosquitoes. The illness developed resistance to available drugs and the transmitter agents also developed resistance to insecticides such as dieldrin, D.D.T etc. The use of D.D.T in particular was abandoned in the region because of this extra-ordinary tolerance of the mosquitoes to this region. In 1961, a social epidemiological survey of 16 villages showed that malaria was endemic in 7 villages and in 1965, another survey indicated evidence of infestation in almost all the villages. In some villages, more than half of the population were infested by the malaria parasites. The danger

produced by the mosquitoes thus affected the most prosperous region of Africa - sudan.

The social epidemiological surveys of this malaria episodes therefore demonstrated the infleunce of socio-cultural, ecological and environmental factors in the achiology of diseases.

Similarly, Fishers (1961) in their study of the "Kru" disease, an acute, always fatal, progressive, degenerative disease of the Central Nervous system. The disease was first found among the New Guinea Islanders and appeared to be restricted to the group particularly among the Fore where it accounted for about half the deaths. After a review of all of the published morbidity data on the kru as well as the ethnological reports on the Fore, Fishers concluded that genetic factors are unlikely to be the major factor responsible for the disease. To them, environmental factors receive more support than genetic factors from the available data. For example, it was self-evident that the distribution of the disease tends to be heavy with women and children and light for men. Scotch (1963) believed that this pattern reflects clearly the marked physical and social separation of the Fore's Social Structure.

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transient forms of schizophrenia among Africans, high frequency of hysterical disorders among Africans and members of less literate and less sophisticated societies, and a low frequency of depressive disorders in developing societies have been used to support this view. However, Igun submits that the data suggest rather that culture can contribute to the patterns of psychological defence, criteria for entry into the sick role and attitudes towards specific symptoms. To the extent that many aspects of personality are determined by culture, certain forms of responses would tend to be common in certain cultures.

Cultural differences in labelling is especially important in the psycho-social disorders, such as alcoholism, homosexuality and certain personality disoders. Because different cultures employ different criteria to distinguish the normal from the abnormal, difficulties have been encountered in studying 'other' cultures. Because of this, a relativist view has emerged. This view holds that abnormality can be defined only operationally but not against an absolute standard. A set of symptoms, in this view, is abnormal as long as the patient or this group view them as distressing. A more appropriate and valuable step, according to Kiev (1972) would be to distinguish between the essential nuclear

elements of specific psychiatric disorders and the culturally conditioned aspects of these same disorders. In connection with this, cross-cultural psychiatry has been able to do this for such unusual mental states such as trance, and dreams. These are variously defined as religious, deviant or sick, depending on the cultural context. Kiev however asserted that although the data does not prove that cultural factors produce illness nor even that some psychiatric entities occur only in specific cultures, they demonstrate how culture may influence both the manifestations and the treatment of psychiatric illness, and how it determines the content and the symbols that are associated with such illness.

In an attempt to give clues on why cultures affect the manifestations of Psychiatric disorders, Lenz (1964) suggested that paranoid form of schizophenia is more common in differentiated cultures throughtout the world, that catatonic and hebephrenic forms predominate in undifferentiated societies, that aggressive behaviour is common in non-literate cultures, while auditory hallucinations are common in cultures in which verbal expression and abstract thinking are highly developed, and systematic delusion are common where abstract thinking is Common.

Similarly, Parker (1962) has suggested that hysteria tends

to predominate in groups where dependency - needs are easily satisfied and sexual drives are not repressed. If this view is accepted, Igun (1988) observes, one may begin to understand the reported prevalence of hysterical behaviour among Africans.

In relation to the reported rarity of depression among Africans, Lambo (1960) has argued that the classical form of depression does not occur in Africa, although 'laughing depression' is found. He suggested that depression tends to predominate in cultures that enforce social control by abstract and situation centred moral teaching. But Asuni (1962) has suggested that depression is common in Africa, although suicide rates are low. And Baasher (1961) reported that one third of his patients in Khartoum suffered from depression of one kind or another. Asuni has attributed the common occurrence of depression accompanied by low suicide rates in Africa to lack of inwardly directed aggressive acts based on guilt, a sense of unworthiness and self-reproach.

In Africa, the data on the epidemiology of psychiatric disorders have been the most inadequate (Igun, 1988). Inspite of the inadequate nature of the data, they provide interesting suggestions. The studies available have focused mainly on the effects of social change processes such as detribalization migration, acculturation,

urbanization, industrialization, etc, on the development of psychiatric disorders. The results of these studies are inconclusive in some aspects (Igun 1988), but unanimous in reporting increasing incidence of psychiatric disorders as a result of Westernization. While Faris (1958) and Carothers (1974) found psychoses to be rare among the Mantu of Congo and tribal Africans in Kenya respecitvely, Laubscher (1937) found no difference between the rate of psychosis among the Bantu of South Africa and Western Europeans. Tooth (1960) concluded from his study of Ghana that there is no evidence to show that psychoses are more common among Westernized Ghanians than among the ethnic Ghanians. He suggested that exposure to Western culture may however, have an unsettling infleunce on neurotic and minor personality disorders. Similarly Field (1960) has attributed the increase in psychiatric disorders in Kenya and Ghana to detribalization and industrialization respectively. In Nigeria, the increasehas been attributed to rapid economic development and Urbanization and Culture change (Leighton, et at, 1963).

THEORETICAL FRAMEWORK

It has become a general procedure in the social sciences for facts to be investigated or examined precisely within a framework rather than in an isolated manner. Theoretical orientation functions mainly in bringing or narrowing the range of facts to be studied (Goode and Hatt, 1952). Furthermore, in an empirical study, it becomes necessary to develop a sound theoretical base which is capable of explaining the wide concepts and relationships in the study. The importance of theoretical framework in a study also lies in the fact that social science research is theory-based and its operations are guided by relevant principles of human behaviour.

This section therefore is an attempt to establish a strong theoretical base for this study. Based on the above, the intellectual roots used for the study is the theory of functionalism. The theory is important to this study because of its claim of an intimate connection between society and health.

Functionalism is an approach which examines social phenomena in terms of their consequences for the broader society. Functionalism asks these kinds of questions

(a) What does a religion do for a Society?

(b) What are the functions of government or of poverty or of classes of of any social phenomena?

Functionalism in the social sciences borrowed such questions directly from biology. In many ways, functionalism could best be described as Science of the body social for it was felt that if insight into the parts of the human body could be achieved by determining how they affected bodily states, the same could be possible for society. Thinkers like Comte Spencer therefore started to conceptualize sociology as a direct outgrowth of biology and as even more important in the explanations of the social world. According to Comte Biology has hitherto been the guide and preparation for Sociology but sociology will in the future be rather the type for the ultimate systematization of biology. Comte's linking of sociology and biology should be taken as important for another reason i.e what is termed the organic analogy. For Comte therefore, society is a social organism. Biology studies individual organisms while sociology examines social organisms. He then went on to demonstrate how society is a kind of organism. He said if we take the best ascertained part in biology, we may decompose structure

anatomically into elements, tissues and organs. There is the equivalent in social organism may be treated as definitely composed of the families which are the true elements or cells, next of the classes or castes which are its proper tissues and lastly of the cities and communes which are its real organs. So for Comte,the family was the basic social element; social stratifications and power were the tissues and the cities were the organs. This vission of the social organism was a decisive moment in sociological theorisings; it connoted a view of the social world as a complex social whole with each part contributing to its maintenance or survival.

When Society is seen as an organism, it is a short analytical step to asking what does this or that structure do for or contribute to the society. Such questions are at the height of functional theorisings.

All the earlier writers, Comte, Durkheim and Spencer never referred to themselves as functionalists. The pioneer functionalist in the real sense is Radchffe Brown who defines social functions of an institution as the correspondence between and necessary conditions of the social organism. Thus he argued, e.g that Religion has the function of maintaining people's minds and sentiments on which their societies existence depends. Hence, there is co-variation between

religion and other elements of the social system. For example, in war - like societies, religion instills sentiments or patriotism and devotion in battle. For Radcliffe - Brown's contemporaries and fellow functionalists such as Malinowski, the function of an item of culture is its role in fulfilling some biological or cultural needs of individuals rather than the necessary conditions of existence of social systems as such. But he points out that no culture or society can exist unless it provides for these individual needs. At the same time, he remarked that the concept of function shows us that an institution is dependent on the total characteristics of a culture and that culture is a whole in which the various elements are inter-dependent.

On the importance of functionalism, kutnitz (1970:320) commented as follows

> the point is that functionalist social theory, which has come to be equated with equilibrum theory, resting as it does on an organic analogy of society, sees change in terms of disequilibrum, dysfunction, and even at times, pathology. It is in this sense that I would call it conservative. The gemeinschaft - like community tends to be static, unchanging, and without history. When it undergoes change, according to this theory, it is likely to disintegrate, and this causes psychiatric problems for its member.

Therefore, illness or health depends on socio-cultural,

environmental factors which are embedded in the social structure of society.

Perhaps, another theory of functionalism which appears to be of considerable importance to this study is that provided by BronisLaw Malinowski, who by his extensive use of 'functional analysis' has contributed, together with Radcliffe-Brown, to the development of the consensus perspective. Malinowski, in his theory, accepted the view that societies could be seen as social systems, and he suggested that these systems of interrelated elements arose from the basic needs of all men. His bedrock assumption was that all men had certain fundamental needs such as food, shelter, protection, and sexual satisfaction. To meet these needs, according to Malinowski, men produce and distribute food; they build dwellings; they group together; they develop hetero-sexual relations. But in fulfilling their basic needs in these ways, they produce secondary needs such as communication, cooperation, control of conflict and so on. The satisfaction of these secondary needs, by the development of language, norms, rules, enforcement agencies etc., in turn gives rise to the need for coordinating, governing and integrating institutions.

On the basis of these assumptions, Malinowski produces a conceptual framework of society as an integrated, coordinated system, generated by the very nature of man. Every feature of society is meeting some need, and it is at the same time fulfilling some functions. In general, the functions it fulfils are the needs of man in his social environment. In meeting the different levels of needs, the social system is maintained. For him, all cultural features of a society are fulfilling some functions or serving some needs. When these functions are discovered, the existence of the cultural item, be it a particular form of social tribe or some burial ritual, has been explained.

RESEARCH OBJECTIVES

The study objectives are as follows

(1) To examine the role of socio-cultural and environmental factors such as status, family ties, occupation etc in the aetiology of hypertension.

(2) To examine the general pattern of prevalence and spatial distribution of hypertension in Ibadan, a metropolitan community.

(3) To identify and isolate variations in the aetiology of

hypertension attributable to demographic characteristics such as sex, age, income etc.

(4) To examine the underlying patterns of social variables prevalent among hypertensive patients.

(5) To contribute to the existing knowledge in social epidemiological surveys.

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CHAPTER TWO

THE STUDY AREA

Ibadan is the largest indigenous metropolis in Africa south of the Sahara. It is the capital city and administrative head-quarters of Oyo State of Nigeria. It had been said to be the largest and most populous city south of Sahara. It is located on longitude 7°20' and 7°40' East of the Greenwich Meridian and Latitude 3°35' and 4°10' North of the Equator. In its regional setting, Ibadan is about 142 kilometre from Lagos by the most direct route, 80 kilometre from Abeokuta, 130 kilometre from Ondo, 74 kilometre from Ile-Ife and 180 kilometre from Akure (NISER, 1989). All roads from Lagos to the north through Abeokuta and Shagamu converge in Ibadan from where they link important cities like Ilorin, Kaduna, Zaria, Kano and Sokoto. The city was referred to as 'city village' by Lloyd (1967) while Mabogunje (1967) aptly puts it as the 'Black metropolis'.

Historically, the city emerged around the Second quarter of the 19th Century as a war town and later developed into great Commercial and Industrial Centre (Awe, 1967). Ibadan was originally settled by immigrants who moved into the settlement in search of

security during the inter-ethnic war periods. Owing to its secure location within the forest region and nearness to the grassland area, Ibadan became one of the few Yoruba towns into which escapees and war deserters in the fact of fulani advancement fled. The location later on encouraged exchange of produce between the grassland region and the forest belt during the peace time. As a result, the town emerged into a market place for the Ijebus, Egbas, Oyos, Ijesha and Ife people. By 1829, Ibadan had become a stable settlement composed of several ethnic groupings.

GROWTH FACTORS

As at 1856, the population of Ibadan was estimated to be 60,000 and increased about 100,000 by 1890 (Mabogunje, 1967). Subsequent censuses of population returned figures of 175,000; 327, 359; 387,133.459;196;for 1911, 1921, 1931 and 1952 respectively. By 1963, the City had attained a population size of 1.5 million. Current estimates would put the population at close to 6 million people (Udoh, 1981). This dramatic growth of the city's population was as a result of a number of factors. The location of the city at strategic railline and road network facilitated both intra as well as inter-regional exchange of goods and services and further

inmigration of people from far and near. As early as 1911, Ibadan had become the headquarter of the then Ibadan province and later developed into the capital city of the former western region of Nigeria. New development regarding the establishment of various gevernmental institutions in addition to government projects specifically cited in the city, the growth of Commerce and industry which attended these development jointly or severally influenced the pattern, growth and development of ibadan. Consequently, the city grew into a major centre of politics, education, social and health facilities and the like.

At the inception of the city, the compound form of housing appeared to be the most amendable to the kith and kin networks and the associated social relations, all of which informed the earlier character of the city. With further transitions in the society, a gradual disintegration of the compound made of housing units in response to the demands of nuclear family units. Consequently, the city began to expand first, in a "fill-in" manner (NISER,1989). However the rising cost of urban land which attended the period of the oil boom of the early 1970s led to the search for cheaper plots of land in the fringe areas. As a result, people started to move away from the main

traditional core area to the periphery, a development which hastened the increasingly growing rural to Urban land Conversion rate. Residential growth has in turn invaded the previously remote and inaccessible areas.

Similarly, the change in people's attitudes and Styles of life had led some to move away from family compound to settle in well laid out areas with essential services and infrastructures. These income and education induced attitudes have also contributed to the outward growth of the city. Government policies have also played a major role in changing the direction of growth and the land use Composition. For instance, the Ibadan Metropolitan Planning Authority decided to arrest the unguided growth of the city by preparing an interim development plan in 1976, which produced the current zonation of lands within the metropolis for residential, industrial and Commerical uses.

ECONOMIC ACTIVITIES

Once a dominant cocoa belt, Ibadan used to attract hired labour from far and near. With the decline in cocoa farming by the middle of the 1960s, local cottage industries began to feature more prominently in the economy of the city than

before. As a result, some residential districts engage in such industries as weaving, dyeing, pottery, soap making metal work, wood work and blacksmithing. To date, the most pervassive of all economic activities is the dominance of middle/women, car cleaners, road side mechanics, domestic servants, gardeners, night-watchmen,guards and an army of hawkers. This service sector essentially cushion many of the shocks and unemployment of the growing urban population

The city's small-scale industries employing few people and having an investment capital of a few thousand naira include light engineering, sawmilling, metal industries, feed mills etc. Medium-to-large scale industries include the Nigerian Tobacco cigarrette Company, flour mills, brewery soft drinks glass works, gas cylinder manufacturers and the now defunct auto-assembly plant.

Recent study of economic activities of Ibadan provides the latest economic indicators of the municipality (NISER, 1988). Apart from the very high percentage of students and apprentices which portray the city as a seat of learning, the city is characterized by petty trading, otherwise known as the distributive trade sector. As one of the haven of the country,

the city recorded recently an unemployment rate of 8.9% (NISER, 1988). As a centre of politics, the percentage of senior civil servants was of the order of 7.2%. Obviously, this excluded those in clerical occupation as well as artesans who were in the government pay roll. Business activities are major economic activities within the municipality. Generally, Ibadan is best described as a centre of education, distributive trade and administration.

CLIMATIC CONDITIONS

Ibadan lies in the tropical rain forest and there are two distinct seasons in a year - the wet season and dry season. While April to October are the period for the wet season, the dry season lasts from November to March. As a result, February to April are usually the driest periods while July to August are the coldest months. The average minimum temperature is approximately 70°F with relative humidity up to 80%.

To portray the effects of the various socio-cultural and economic characteristics of the internal structure of Ibadan with regards to housing and the quality of environmental sanitation, Mabogunje and Awe (1967) divided the city structure into three fairly homogeneous groups. These are

(a) Core area

(b) Peripheral Sector

(c) Intermediate Zone

The core area is usually referred to as the traditional sector of the city and is characterized by lack of physical planning and its abundance of dilapidated buildings. Mabogunje and Awe (1967) put the density at 400-1000 people per acre and accomodation to between 2 to 7 per habitable room.

Since the establishment of the Bodija Housing Estate, the physical development of the peripheral sector has been phenomenal (Adekunle, 1987). The area is characterized by low population densities. This area embraces Bodija and Kongi Layouts and the University of Ibadan. It is in these areas that the University lecturers, professionals, top civil servants and the more affluent businessmen live. The population density is about a few hundreds per acre in contrast to the inner of the city which are highly congested.

The intermediate zone is usually referred to as the stranger sector. It is an areas of 'late' development mainly for migrants from other Yoruba towns and other ethnic groups, these are Molete, Sabo and Mokola areas. The population density is moderate

and much lower than the core area and the pattern of houses varies from traditional mud type to a few scattered modern houses. The ethnic groups who inhabit this area include the Efiks, Ibo, Urhobos, Hausas, and other Yoruba groups.

The supply of water in the city of Ibadan is irregular. While houses at the peripheral and intermediate zones enjoy water supply, although erratic, most houses in the traditional or inner core are seriously been 'starved' of water. These category of people utilize water gotten from streams for their household cores

Similarly, electricity supply is not adequate too. Many areas could be without electricity for weeks. As a remedy, most families have found solace in the use of generating plants.

Further, Ibadan is the home of many educational and health establishments. The University College Hospital, which constitutes our main area of study was established in 1948 but was officially opened in November 1957. The non-recognition of the medical qualification awarded by the Yaba higher school outside the country despite the comparability of course content with aid level of work with that of British Medical Schools led to agitation for a medical school where Africans could be trained and awarded internationally recognised medical degrees. With the establishment

of University College, Ibadan, medical education in Nigeria received greater attention.

The first member of the medical faculty of University College Ibadan arrived in 1948 and in October of that year the medical School began teaching. London University provided sponsorship of the training and degrees offered and continued to do so until 1962. Between 1954 and 1959 nearly 90 doctors qualified by taken the London degree and acquired the degree of the adoptive school, before the arrangement came to an end with the completion of the new teaching hospital at Ibadan in 1957. Since then the complete medical course has been conducted in Nigeria.

The first group of students to graduate M.B.B.S. (Ibadan) did so in June 1967 and since then the numbers have risen

M.B.B.S. Ibadan (full training at Ibadan)

1967	42
1968	49
1969	43
1970	48
1971	53
1972	112

Source: O.O. Akinkugbe (1971) the present status of Medicine in Nigeria, Ibadan; Ibadan University Press.

The University College Hospital has a strength of about 86 Administrators, 214 medical personnel, 2,292 other staff, a total of 2,592 Senior and Junior staff and a total of 52 Departments.

DESIGN OF STUDY

The design of this study is essentially exploratory. It attempts to ferret the socio-cultural and environmental factors of hypertension in Ibadan. It provided answers to questions as regards age, sex, occupation etc in the aetiology of hypertension. It is also explanatory in the sense that it provided explanation where such 'association' between the socio-cultural variables and hypertension is found.

Further, this study is limited to Ibadan and entails only the socio-cultural and environmental factors that may likely produce hypertention. By this, it does not cover the factor of genetics or inheritance which is essentially a biological factor in high blood causation.

Our research population comprised of hypertensive patients in Ibadan. The University College Hospital, Ibadan and Traditional hospitals were used to get the required number of respondents.

On the whole, we administered questionnaires to a sample of two hundred and fifty-two patients.

METHOD OF DATA COLLECTION

In data collection, lots of steps were undertaken. Firstly, a pre-field work survey was undertaken by the researcher. This was to identify our 'captives'. The pre-field work survey was carried out at the University College Hospital, Ibadan. The pre-field work survey also served as a pilot study where our main research instrument, the questionnaire was tested of its adequacy. A total of twenty questionnaires were used for the pilot study. This pre-test exposed some ambiguities in the form of technical language, lenght of the questionnaire etc. These were adequately rectified in the evolvement of another questionnaire which was submitted to my supervisor for scrutiny.

For the field-work proper, we developed a forty item questionnaire (see appendix 1). The questionnaire contained questions that inquired about the socio-cultural and environmental factors of hypertension. In addition, it inquired about the demographic characteristics of respondents. These were considered vital and also helped in realising some of our research objectives.

Questions were in open and close ended forms. The open-ended ones afforded the respondents the free-will to express their opinions on a number of issues raised.

To collect information, a letter of introduction was provided by the Head of Sociology Department (see appendix II). The letter served a dual purpose: introduced the researcher as well as seeking consent of the hospital to collect information. In return, we were given a letter by the Director of Administration of the hospital indicating his approval to collect data (see appendix iii). The research team comprised of the researcher and two other assistants. The assistants were students who had completed their secondary school education and they were thoroughly taken through the questionnaire by the researcher. The field work spanned a month. In and out-patients were interviewed. All the in-patients and some of the out-patients which were accidentally picked. The same was also done in traditional homes. Questionnaires returned were edited, and in the end a total of 252 questionnaires passed the editing stage and were taken as reliable for the study. They were coded and transferred into the IBM computer terminal at the Nigerian Institute of Social and Economic Research, Ibadan for processing. Method of Data analysis included frequency

distribution tables and cross interrelationship tables.

PROBLEMS ENCOUNTERED

As envisaged with any research of this nature, we encountered some problems especially during the administration of questionnaires. In the first instance, getting approval from the Hospital authorities first appeared like getting 'honey from a rock'. About two weeks was 'lost' in the process as we were told on many occasions that the person to give the consent wasn't around. However, we finally fot the cosnent duly approved by the Head of Department of Medicine.

Secondly, we had problems getting our respondents. For the in-patients, most times we went there they were always engaged. They may be sleeping or under the medication prescribed by the consultant. However, they did not entertain any fear as to what the research was all about. For the out-patients, we weren't so lucky. Some refused completely while those that agreed to be interviewed were always not patient enough to see the end of the questions, even though we designed the questionnaire so short enough.

Furthermore, we faced the problem of getting our required sample size initially but with the patience of the researcher, we ended up having a good number.

On the questions, the respondents answered the questions except the question that inquired about their number of children. Initially, they did not want to respond but with much persuassion from the interviewers, we were able to get something out of them.

LIMITATION OF DATA

Although the study investigated the socio-cultural factors of hypertension, data collected however are not without some limitations.

The study only took account or covered only cases of hypertension reported in the health care system. As a result, it does not claim to have discovered the underlying socio-cultural variables of hypertension beyond Ibadan, but will indeed serve as a guide for future researches with wider scope.

CHAPTER THREE

FACTORS INFLUENCING THE INCIDENCE OF HYPERTENSION

In this chapter, we explain the socio-cultural factors that influence the incidence of hypertension in Ibadan. Attempt is also made to consequently analyse and logical deductions made where appropriate. First, let us discuss the demographic characteristics or profile of the respondents from where subsequent discussions would benefit tremendously.

TABLE 3.1

SEX DISTRIBUTION OF RESPONDENTS

Sex	Frequency	Percentage
Male	88	35.0
Female	164	65.0
Total	252	100.0

The above table shows the distribution of respondents by sex.

It clearly shows that females in the population studied are more hypertensive with a percentage of 65.0 to 35.0 per cent of males. This implies that sex is a potent factor in hypertension. The above distribution is so because females do not often quickly overcome setbacks. Furthermore, they are more hypertensive because of the stress they undergo while going through their domestic duties which are often very demanding. This even becomes compounded where such females have to combine this with their economic activities or work outside the home.

AGE

The age composition of hypertensive patients as found in this study shows that few people aged 15-24 have hypertension. They constitute four per-cent of the total population studied. Ages 25-34 carry 11.1 per cent while 35-44 has 27.8 per cent. People from ages 45 and above are more with a percentage of 56.3 per cent. Two patients, however did not disclose their age, although they are assessed to be fairly old from their looks and manner of talking. This distribution shows that advancement in age gives rise to hypertension. This variable is cross-related with the question on what they think is responsible for their being hypertensive. The result of the cross-relationship reveals that

people assume greater responsibilities as they increase in age. These responsibilities generate tension which they apparently find difficult to cope with. The age distribution described above is presented below in a tabular form

TABLE 3.2

AGE DISTRIBUTION OF RESPONDENTS

Age	Frequently	Percentage
15 - 24	10	4.0
25 - 34	28	11.1
35 - 44	70	27.8
45+	142	56.3
No Response	2	0.8
Total	252	100.0

Out of the 252 hypertensive patients studied, 35 constituting 13.9 per cent are found to be Igbo-speaking people. The Yorubas Have an overwhelming percentage of 71.4 while the Hausas and the category labelled others are represented by 6.0 and 8.7 per cents respectively. It is pertinent to say however that the composition

TABLE 3.3

ETHNIC ORIGIN OF RESPONDENTS

Ethnic Origin	Frequency	Percentage
Igbo	35	13.9
Yorubas	180	71.4
Hausa	15	6.0
Others	22	8.7
Total	252	100.0

of the category labelled others include people from such ethnic groups as Tiv, Igbira, Edo, Ishan etc. This distribution is not surprising for one major reason: the study was conducted in a yoruba - speaking town, as such, this underlies their being in the majority. Therefore, there is not much evidence to say that the Yorubas are more hypertensive except there is information about actual distribution of ethnic groups in Ibadan. This information, of course, is not available.

MARITAL STATUS

Furthermore, we considered the marital status of patients a

potent factor because many people are of the opinion that married people are more hypertensive because of the strains involved in married life. Because of this, we asked the respondents about their marital status. The table below shows the distribution.

TABLE 3.4

MARITAL STATUS OF RESPONDENTS

Marital Status	Frequency	Percentage
Single	11	4.4
Widowed	58	23.0
Married	143	56.7
Separated	31	12.3
Divorced	9	3.6
Total	252	100.0

In the table, the following distribution is observed. Single 4.4 per cent, Widowed 23.0 per cent, Married 56.7 per cent, Separated 12.3 per cent and Divorced 3.6 per cent. Married people with hypertension have the greatest percentage. This

is not unconnected with the stress that is a normal feature of married life. The 23.0 per cent carried by Widowed respondents seems to confirm that hypertension thrives well on problems. Our observation also reveals that there are women than men in the Widowed category which also tends to confirm our earlier assertion that females take a long time to control shocks. Although the actual distribution of respondents in respects of maritalstatus in Ibadan is unknown, 56.7 per cent is considered high enough for any conclusion to be made

OCCUPATION

One of the most important variables in this study is patient's occupation. This is so because people often have the belief that occupation has a considerable influence on hypertension. The study shows that there are more professionals with hypertension than other occupational groups. They constitute 40.0 per cent of the total population. The Civil Servants are next with 33.0 per cent while traders and artesans have 22.2 and 4.0 per cents respectively. One respondent did not disclose his occupation. This is shown in the table below

TABLE 3.5

DISTRIBUTION OF RESPONDENTS BY OCCUPATION

Occupation	Frequency	Percentage
Civil Servant	83	33.0
Professional	101	40.0
Trading	57	22.2
Artesan	10	4.0
No Response	1	0.8
Total	252	100.0

We aslo asked the respondents whether the work they do takes them from one place to the other i.e if they move around a lot. This is based on the fact that occupation per se may not be tension generating but more importantly the stress involve in it

The distribution above shows that out of 252 total respondents, 160 constituting 63.5 per cent said they run around a lot while 35.7 per cent do not run around. 2 (0.8%) respondents however could not say whether or not they run around a lot. A further Cross-relationship of variables shows that 38 per cent of those that said they run around a lot are professionals while 22 per cent are

TABLE 3.6

WITH YOUR KIND OF WORK, DO YOU RUN AROUND A LOT

Do you run around	Frequency	Percentage
Yes	160	63.5
No	90	35.7
Don't know	2	0.8
Total	252	100.0

traders. The remaining 40 per cent are Civil Servants.

One important factor considered necessary to induce stress is unemployment or the fear of loosing one's job. We then ask: Does your your place of work often retrench its staff? When calculated on the basis of all respondents, the study shows that 29.8 per cent said there is staff retrenchment where they work while 26.6 (67) per cent believed it isvery rare for their place of work to lay off their workers. The question does not apply to 43.6 per cent of the total respondents. These people run their own business. However, it is considered very important to interprete on the basis of relevant respondents. This is shown in the table below

TABLE 3.6

WITH YOUR KIND OF WORK, DO YOU RUN AROUND A LOT

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TABLE 3.7

DOES YOUR PLACE OF WORK

OFTEN RETRENCH ITS'S STAFF?

Retrenchment	Frequency	Percentage
Yes	75	55.8
No	67	47.2
Total	142	100.0

The above distribution shows that over 50 per cent of the relevant respondents related job-retrenchment to hypertension.

TABLE 3.8

ANNUAL INCOME OF RESPONDENTS

Annual Income	Frequency	Percentage
Less than 3,600	40	15.9
3,601 - 7,000	93	36.9
7,001 - 10,000	61	24.2
Above 10,000	50	19.8
No Response	8	3.2
Total	252	100.0

The table above shows that respondents who earn less than

₦ 3,600 constitute 15.9 per cent. Respondents who earn between ₦ 3,601 and ₦ 7,000 are 93 representing 36.9 per cent while those with an annual salary of between ₦ 7,001 and ₦ 10,000 constitute 24.2 per cent. Above ₦ 10,000 earners are represented by 19.8 per cent. A negligible 3.2 per cent of the total respondents did not answer. If annual income is to be used solely as an index of class, it therefore shows that about 82 per cent of the respondents fall within the middle and upper category.

EDUCATIONAL QUALIFICATION

For us to measure social status adequately, a lot of indicators were considered and educational qualification is one of them. The responses show that the respondents are fairly educated. Those with Secondary/Teacher Training Education constitute 34.9 per cent. College of Education/Polytechnic and University graduates carry a percentage of 29.8 and 26.2 respectively. Primary school leavers are represented by 9.1 per cent of the total population. However, since this is one indicator of social status, it will be premature to say that social status is related to hypertension. In conclusion, educational qualification may have no relationship with hypertension since it does not generate any tension. The distribution above is

shown in the table below

TABLE 3.9

EDUCATIONAL QUALIFICATION OF RESPONDENTS

Educational Qualification	Frequency	Percentage
Primary School	23	9.1
Secondary/TTC	88	34.9
College of Education/Poly	75	29.8
University	66	26.2
Total	252	100.0

RELIGION

TABLE 3.10

DISTRIBUTION OF RESPONDENTS BY RELIGION

Religion	Frequency	Percentage
Islam	121	48.0
Christianity	118	46.8
Traditional	8	3.2
Others	5	2.0
Total	252	100.0

The table above shows the distribution of respondents by

religion. It shows that 48.0 per cent of the total respondents are Muslims while christains constitute 46.8 per cent. Traditionalists carry 3.2 per cent and the category labelled others 2.0 per cent. This category includes those who proclaim to be free - thinkers or moralists. One follower of Sat Guru Mahraji was also grouped under this category. The trend of the above distribution may not be surprising because Islam and Christianity are the two dominant religious groups in Ibadan. This variable, therefore does not explain the incidence of hypertension.

NUMBER OF CHILDREN

Based on the fact that hypertension thrives well on stress or tension, we considered it important to inquire about the number of children the respondents have. This is predicated on the assumption that the higher the number of children, the greater the strain on the parents. The following distribution is observed. Those who do not have any child carry 4.0 per cent while those who have between one and four children has 42.8 per cent. Whereas parents of between five and nine children has 36.9 per cent, those with ten children and above are 11.9 per cent. Eleven respondents representing 4.4 per cent did not disclose their number of

children. This set of people are still tied to their traditional beliefs which do not encourage them to count their number of children or disclose it to people not known to them. Although, greater number of children may generate tension, results of supplementary interview (unstructured) conducted show that it depends on a number of other variables namely how well the children were brought up and income, among others. Therefore, the number of children of respondents in this study does not explain the incidence of hypertension. The distribution is as shown below

TABLE 3.11

NUMBER OF CHILDREN OF RESPONDENTS

Number of children	Frequency	Percentage
None/NA	10	4.0
1 - 4	108	42.8
5 - 9	93	36.9
10 +	30	11.9
No Response	11	4.4
Total	252	100.0

OTHER RELATIVES YOU CATER FOR

To ascertain whether family responsibility induces hypertension,

we asked the respondents the number of other relatives they cater for and the amount they expend on them. The number is shown below

TABLE 3.12

NUMBER OF RELATIVES RESPONDENTS CATER FOR

Number	Frequency	Percentage
None	22	8.7
1 - 4	218	86.5
5 - 9	12	4.8
Total	252	100.0

The distribution shows that an overwhelming percentage of 86.5 of our respondents cater for between one and four other relatives. Twelve (4.8 per cent) alarmed they cater for between five and nine other relatives while 8.7 per cent have no other person to cater for. The 91.3 per cent of the total respondents who asserted they have other relatives they cater for said they spend not less than ₦ 1000 a year on each child.

Furthermore, we wanted to know among other things, the position of respondents in their family set - up. Almost 66 per

cent of the respondents indicated that they are the first child or because of their education or financial solvency, they have assumed an important position in their family set - up. We asked another question relating to whether family members rely on them in matters of decision. The responses show that 63.1 per cent believe they are indispensable in family decision-making process 31.3 per cent said they are not relied upon while 5.6 per cent said they do not know. The distribution is shown in the table below

TABLE 3.13

ARE YOU RELIED UPON IN

FAMILY'S DECISION-MAKING?

Reliance	Frequency	Percentage
Yes	159	63.1
No	79	31.3
Don't know	14	5.6
Total	252	100.0

When the respondents were asked whether family members interfere in their home, the response, are as shown in the table below 33.0 per cent said family members interfere in their

TABLE 3.14

DO FAMILY MEMBERS INTERFERE

IN YOUR HOME?

Interference	Frequency	Percentage
Yes	83	33.0
No	118	46.8
Don't know	51	20.2
Total	252	100.0

marital homes. 46.8 per cent of the total respondents asserted that members of their families do not interfere while those that do not know constitute 20.2 per cent. However, when calculated on the basis of relevant respondents, 41.3 per cent said family members interfere in their homes. Reasons given for interference, on further inquiry range from request for money, bringing relatives for custody, and sometimes number of children

From all the above therefore, it shows that family responsibility induces hypertension.

TABLE 3.15

RESIDENTIAL AREA OF RESPONDENTS

Residential Area	Frequency	Percentage
Low Class	75	29.8
Middle Class	121	48.0
Upper Class	56	22.2
Total	252	100.0

Respondents were asked to give their residential area. Areas mentioned are Beere, Moniya, Agbowo, Mokola, Elekuro, Bodija, Jericho, University of Ibadan, Sango and Iwo road. Based on the pattern of housing, income and educational qualification of respondents, the above categorisation into lower, middle and upper class was arrived at. The table shows that 48.0 per cent reside in a middle class environment while 29.8 per cent reside in a low class area. 56 respondents constituting 22.2 per cent reside in upper class areas. For further clarification, the areas mentioned and category assigned are as follows; Beere, Moniya, Agbowo, Elekuro, Sango and Mokola are grouped as low class areas.

Bodija Housing estate, Ring Road and Jericho are regarded as upper class areas while Apata, Ojo Express are categorised as middle class.

Therefore, this study has shown that people with high social status are more hypertensives. Educational qualification, Income, Residential Areas, Occupation are used as Indices for measurement.

TABLE 3.16

RELATIONSHIP WITH MARITAL PARTNER

Happy	Frequency	Percentage
Yes	159	95.7
No	7	4.3
Not Applicable	78	
No Response	8	
Total	252	100.0

Marital disharmony is considered an important factor that may cause hypertension. We felt it was important to look at this factor among hypertensive patients in Ibadan. We therefore asked whether the respondents are happy with their marital partners. The distribution as brought out in the table above shows that only

166 responded and the percentage rate shown was calculated on 166 relevant respondents. 95.7 per cent said they are happy with their partners while 4.3 per cent indicated they are not. This therefore shows that marital disharmony does not explain the incidence of hypertension in Ibadan.

Although respondents may appear to be happy with their partner, we also tried to probe more into their marital life. We inquired whether they have problems with their marital life. The response is as shown below.

TABLE 3.17

ANY PROBLEM WITH YOUR MARITAL LIFE?

Problem	Frequency	Percentage
Yes	152	60.3
No	80	31.7
Don't know	9	3.6
NA	11	4.4
Total	252	100.0

This question does not apply to 20 respondents who initially claimed they did not have partners. 65.5 per cent claim they have

one problem or the other while 34.5 per cent said they encounter no problem in their marital life. Although, majority of the respondents claimed they are happy with their partners, it could be deduced, however that problems in marital life contributes to hypertension in Ibadan. We probed further as to the kind of problem. 3.6 per cent of the total respondents said their problem is that of inability to give birth which apparently they have carried so high to have resulted in stressful conditions. A greater percentage of 48.0 claimed theirs is external interruption in their family affairs while 6.0 and 4.8 per cents indicated economic incapacitation and death of spouse respectively. 37.6 per cent are not relevant in this analysis. The above distribution is as shown below.

TABLE 3.18

KIND OF PROBLEM WITH MARITAL LIFE

Problem	Frequency	Percentage
Not Applicable	95	37.6
Inability to give birth	9	3.6
External Interruption	121	48.0
Economic Incapacitation	15	6.0
Sponse's death	12	4.8
Total	252	100.0

REACTION TO UNEXPECTED OCCURRENCES

Furthermore, we thought it was necessary to ask the hypertensive patients a question which is of a psychological nature as regards their reaction when the unexpected happens. Table 3.19 below shows the response pattern.

TABLE 3.19

REACTION TO UNEXPECTED OCCURRENCES

When the unexpected happens	Frequency	Percentage
Panick	183	72.6
Pray	17	6.7
Feel depressed	45	17.9
Get Drunk	7	2.8
Total	252	100.0

As shown, the percentage of those that indicated that they expressed panick when anything least expected happens is 72.6 per cent. Those who pray, feel depressed and get drunk carry 6.7, 17.9 and 2.8 per cents respectively. The greater percentages of those that panicked and felt depressed is an indication of the

extent to which the individuals carry their burden which is not unlikely to induce a stressful or tensed condition. The logical deduction is that those who pray must have given the Almighty God their burden for Him to bear. Similarly, those who get drunk forget completely the problem, although at that moment, Attempt was made to juxtapose this factor with a question on what they think was responsible for their being hypertensive. The investigation reveals that implicit in their response is the psychological problem of being 'weighed down' by the problem leading to their hypertension.

MEMBERSHIP OF SOCIAL/PROFESSIONAL CLUB

Based on an assumption that to engage in numerous activities may produce stress, we asked the respondents whether they belong to any social/professional club. Out of a total population of 252 respondents, 87.7 per cent indicated that they are members of organizations. Whereas a small percentage of 12.3 said they don't belong to any club. In fact, out of those that said they are club members, we found out cases where some belong to as many as four clubs e.g. some belong to cooperative societies, town's club and a social club. Interestingly too, none said they

don't have responsibility in the club - and that the meetings are normally crowded on weekends. The table below shows the distribution.

TABLE 3.20

MEMBERSHIP OF SOCIAL/PROFESSIONAL CLUB

Member of organization	Frequency	Percentage
Yes	221	87.7
No	31	12.3
Total	252	100.0

We further cross-examined responsibilities in the club with whether they often have time to relax. The study reveals that about 60.1 per cent don't have time to relax because of their roles in their clubs. Paradoxically therefore, membership in social organisation which is supposed to release tension has also been found to aggravate it. However, it is pertinent to add that it is only membership in many clubs where the individual performs a lot of roles make ability to relax impossible which may induce stress consequently leading to an hypertensive condition. The table below also shows that majority of hypertensive patients

don't have to to relax due to one reason or the other.

TABLE 3.21

OFTEN/SOMETIMES FEEL YOU HAVE TIME TO RELAX

Have time to Relax	Frequency	Percentage
Yes	93	36.9
No	157	62.3
No Response	2	0.8
Total	252	100.0

Reasons given include restlessness, domestic work, having a lot of things to and nature of job. As one respondent aptly puts it "I am engaged in a lot of things, have little time for my family and I only consider sleeping at night as my moment of relaxation".

STATE OF NEIGHBORHOOD SECURITY

One important factor capable of inducing hypertension is insecurity or fear of being threatened. Here, noisy environment, menace of armed robbers came to focus. Consequently, respondents were asked to indicate the state of security in their neighborhood. Their responses are shown below in a tabular form.

TABLE 3.22

STATE OF NEIGHBORHOOD SECURITY

State of security	Frequency	Percentage
Very safe	9	3.6
Armed Robbers	142	56.3
Noisy	33	13.1
General insecurity	68	29.0
Total	252	100.0

As the table shows, 3.6 per cent of the total respondents said their neighborhood is safe while 56.3 per cent asserted that they are frequently faced with attacks by armed robbers. 13.1 per cent said their environment is noisy and 29.0 per cent indicated general insecurity. Further investigation reveals that 5.9 per cent have fallen victims of their neighborhood insecurity while 90.5 per cent asserted they have never fallen victims. But apparently they showed and expressed fears of insecurity. Some did not mince words to say that was part of the problem responsible for their being hypertensive. This is shown below.

TABLE 3.23

EVER FALLEN A VICTIM

Ever fallen a victim	Frequency	percentage
Yes	15	5.9
No	228	90.5
Not Applicable	9	3.6
Total	252	100.0

FAVOURITE FOOD

Because of the importance of nutrition or food-intake in hypertension, the respondents were asked to mention their favourite food and how often they consume them. This is based on the belief that food which contain a lot of cholesterol or fats may induce hypertension.

TABLE 3.24

FREQUENCY OF FOOD ITEMS TAKEN

Food Items	Very Often	Per cent	Less Often	Per Cent	Sel- dom	Per Cent	Total	Per Cent
Beans	123	48.8	86	34.1	43	17.1	252	100.0
Gari	220	87.3	12	4.8	20	7.9	252	100.0
Yam	180	71.4	53	21.0	19	7.5	252	100.0
Pap	205	81.0	35	13.9	12	4.8	252	100.0
Rice	100	39.7	65	25.8	87	34.5	252	100.0
Bread	85	33.7	101	40.1	66	26.2	252	100.0

The table above shows the list of food items taken and frequency. It shows that the food items above are taken frequently except Rice and bread which apparently is due to a rise in their prices. These food items do not contain cholesterol i.e. they are not fatty foods. This therefore implies that food intake has no effect in the aetiology of hypertension of respondents. However, this does not downplay or assert that foods particularly fatty foods do not contribute to the hypertension of those studied. This may be because these cholesterol foods are more often than not expensive .

EFFECT OF SAP ON LIVING STANDARD

We stated in the introductory chapter that the prevailing situation in Nigeria particularly within the context of the Structural Adjustment Programme ought to be examined. It is in this respect that the respondents were asked whether the economic policy has any effect on their standard of living. Expectedly, 98.4 per cent of the respondents said it has affected their standard of living while 1.6 per cent indicated that it has not. This is shown in the table below.

TABLE 3.25

EFFECT OF SAP ON LIVING STANDARD

Effect	Frequency	Percentage
Yes	348	98.4
No	4	1.6
Total	252	100.0

The fall in the standard of living is reflected in the kind of food they eat. Before SAP, the respondents were consuming different forms of food viz egg, bread, tea, yam, which are now expensive. With SAP however, they have taken solace in less expensive food items such as Gari, yam, beans, foo-foo.

Although SAP has led to a fall in eating habit, this alone has in no way contributed to hypertension. As a result, we shifted attention to another area which is whether the economic reforms programme (SAP) has led to tension within the family. The responses are shown in table 3.26.

TABLE 3.26

HAS SAP GENERATED TENSION IN FAMILY

Tension	Frequency	Percentage
Yes	159	63.1
No	93	36.9
Total	252	100.0

As shown, 63.1 per cent of the total respondents said SAP has generated tension in their family while 36.9 per cent would not agree as regards their family. The tension as shown in table 3.27 usually arises among parents and children as indicated by 58.3 per cent of the respondents. Between partners is 3.6 per cent. Among children carry an infinitecimal 1.2 per cent. This tension apparently arises because of the hardship which the

adjustment programme has created in the homes of many Nigerians.

TABLE 3.27

WHERE TENSION ARISES

Tension Between	Frequency	Percentage
Not Applicable	93	36.9
Myself and Husband	5	2.0
Myself and Wife	4	1.6
Husband and Children	61	24.2
Wife and Children	86	34.1
Among Children	3	1.2
Total	252	100.0

More importantly, frequency of tension is considered a veritable factor rather than occurrence itself. The rate of frequency is shown below.

TABLE 3.28

FREQUENCY OF TENSION

How often	Frequency	Percentage
Not Applicable	93	36.9
Always	52	20.6
Sometimes	45	17.9
Less Often	59	23.4
No Response	3	1.2
Total	252	100.0

The table above shows the following distribution: those who indicated that the tension arises always are represented by 20.6 per cent while those that said it occurs not always but sometimes carry 17.9 per cent. 23.4 per cent of the total population asserted the tension occurs less often. Three people constituting 1.2 per cent did not answer the question. Logically the frequency of the tension is such that is enough to generate hypertension.

PERCEIVED CAUSES OF HYPERTENSION

To further find out the role of socio-cultural factors in the

aetiology of hypertension, the respondents were asked a general question as to what they think was responsible for their hypertension. The table below shows their responses.

TABLE 3.29

PERCEIVED CAUSES OF HYPERTENSION

Factor	Frequency	Percentage
No relaxation	79	31.4
poverty	63	25.0
Sponse's death	61	24.2
Enormous activities	25	9.9
Nutrition	8	3.2
Accident	6	2.4
No Response	10	3.9
Total	252	100.0

In the table, about 95.0 per cent of the respondents claimed factors such as no relaxation, poverty, death of sponse, enormous activities, accident. This further lays credence to the fact that socio-cultural factors contribute immensely to the aetiology of hypertension.

CHAPTER FOUR

SUMMARY, CONCLUSION AND RECOMMENDATION

This study is one of several studies that have tried to explain the importance of socio-cultural and environmental factors in the aetiology of diseases or illnesses. The findings are summarized as follows:

SEX - The study showed that females are more hypertensive. This case, as earlier indicated could be because of their weak personality which makes them not to overcome reversals quickly. Additionally, they encounter stress because of their incompatible roles as mother and worker. This prevalence of women was also reported by Osotimehin (1990).

AGE - Furthermore, the study showed that advancement in age gives rise to hypertension i.e. older people often have hypertension more than younger ones. This is because people assume greater responsibilities which generate tension as they advance in age. Also, this corroborated Osotimehin's report that advancement in blood pressure is as a result of increase in age.

MARITAL STATUS - The investigation reveals that there are

more married people with hypertension. This is not unconnected with the stress that is a normal feature of married life. Also, we found a significant number of widowed females with hypertension. All these suggest that these categories of people are faced with more problems whcih consequently induced stress. It is also pertinent to say that marital problems have substantial contribution in the origin of hypertension. Although, this depends on how far the victims have carried their problems, what they are doing about the problems and whether they are ready to overcome their problems. In addition, marital responsibility was also found to induce hypertension.

OCCUPATION - As regards occupation, there is no significant relationship with hypertension although professionals are more often hypertensive because they run around a lot.

SOCIAL STATUS - A greater number of those interviewed in this study fall within the middle and upper class categories. Annual income, educational qualification, occupation, residential area, among others were used as indices. This suggests that hypertension is an illness of those whose status are high in the society.

Concommitantly, the spatial distribution of the illness showed that they are most common in middle-class and upper-class

residential areas.

PSYCHOLOGICAL FACTORS - The study found out that most hypertensive patients have been unable to react favourably to unexpected problems. As much as 79.3 per cent of the total respondents asserted they panick and/or feel depressed if something they least expected happens.

RELAXATION - This study also showed that majority of hypertensive patients don't have time to relax. This is as a result of the tight schedule of work they often have. In fact, about 60.0 per cent of those that belong to many clubs and patiticapte actively don't have time to relax which consequently results in stressful conditions.

SAP - Earlier (in the introductory chapter) we indicated that these socio-cultural factors will also be examined within the context of the Structural Adjustment Programme which has brought untold hardship to people living and working in Nigeria. Expectedly, this economic programme has led to tension within various families and this tension occurs frequently and general hypertension. Although it led to the fall in standard of living, the study further revealed that this alone has in no way

contributed to hypertension. Interestingly, the issue of job-safety has appreciable impact on hypertension because of its relationship with tension.

NEIGHBORHOOD SECURITY - Another important variable is that hypertension is often associated with insecurity of neighborhood. This study showed that inhabitants of an unsafe neighborhood are likely to have high blood pressure.

In conclusion, we have in this study demonstrated the role of socio-cultural factors in the aetiology of diseases. The recognition of these factors will definitely lead to effective handling of illness. It is also useful in the planning of health programmes for the people. In fact, the importance of these factors in illness-causation have also been commented upon by a number of scholars.

Oke (1991) in a recent paper categorically asserted in agreement with Myers (1966) that it is generally recognized today that various socio-cultural factors are often of major importance in determining, intensifying, or prolonging illness.

Also, Oyeneye (1991) apparently in concordance with Oke says

> it now goes without contention that health or ill-health in an individual is a product of

> combined effects of biology, psychology as well as his social and physical environment. What remains in contention is the relative strength of each of these factors in health or ill-health determination.

Furthermore, Erinosho (1991) while arguing out the case for an interdisciplinary research between social sciences and health also says

> Despite a sustained commitment to the promotion of health status of all Nigerians by responsible authorities, there is still a high incidence of parasitic and infectious diseases. Malaria fever, diarrhoeal diseases, dysentry, whooping cough etc dominate the disease profile of this country. The epidemiological reality is further compounded by the reported incidence of AIDS. While a lot is known about the pathogenic agents of many of these disorders, there is a dearth of rich information which are derived from extensive field epidemiological studies.

Furthermore, he asserted that available reports have hardly explored in great detail the possible interplay between socio-culrural factors and the incidence of these disorders. Abundant opportunity, he says, therefore exists for social scientists working in collaboration with health scientists to determine the role of social and cultural factors in the aetiology of the common diseases, and to formulate appropriate intervention strategies.

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APPENDIX i

Department of Sociology,
University of Ibadan,
Ibadan.

Dear Respondent,

I am a postgraduate student in the above-named department currently undertaking a study entitled 'The Study of Socio-cultural and Environmental Factors of Hypertension in Ibadan: An Epidemiological Approach'. Please answer the questions frankly. Your response will be held in close confidence. Mark (x) in the spaces provided unless otherwise stated in any part of this questionnaire.

Name of Respondent ----------

(1) What is your sex? Male [ ] Female [ ]

(2) What is your age? (give actual) ----------

(3) What is your ethnic origin? ----------

Yoruba [ ] Igbo [ ] Hausa [ ] Others (specify)

---

(4) What is your marital status?

Single [ ] Married [ ] Widowed [ ] Separated [ ]

Divorced [ ]

(5) What is your occupation? ----------

(6) With your kind of work, do you run around a lot?

Yes [ ] No [ ] Don't know [ ]

(7) Does your place of work often retrench its staff?

Yes [ ] No [ ]

(8) What is your annual income?

Less than ₦ 3,600 [ ] ₦ 3,600-₦ 7,000 [ ]

₦ 7,001 - ₦ 10,000 [ ] Above ₦ 10,000 [ ]

(9) What is your Educational qualification?

Primary School [ ] Secondary/TTC [ ]

College of Educ/Poly. [ ] University [ ]

(10) Where do you live (Area) ----------

(11) What is your religion?

Islam [ ] Christianity [ ] Traditional [ ]

Others (specify) ----------

(12) How many children have you? ----------

(13) How many other relatives do you cater for? ----------

(14) Approximately how much do you spend on these children?

---

(15) What are your three favourite food? ----------

(a) ----------

(b) ----------

(c) ----------

(16) How often do you take them?

(a) Very often [ ] (b) Less often [ ]

(c) Seldom [ ]

(17) Are you happy with your marital partner?

Yes [ ] No [ ] Don't know [ ]

(18) Do you have any problem with your marital life?

Yes [ ] No [ ] Don't [ ]

(19) If yes, what is the problem? ----------

---

(20) When something unexpected happen what is your first reaction?

Panick [ ] Pray [ ] Feel depressed [ ]

Get Drunk [ ]

(21) What is your position in the extended family? ----------

(22) Does your position make family members rely on you when making a decision?

Yes [ ] No [ ] Don't know [ ]

(23) Do family members interfere in your home?

Yes [ ] No [ ] Don't know [ ]

(24) If yes, briefly state how ----------

---

(25) Do you belong to any Social/Professional Club?

Yes [ ] No [ ]

(26) Name them -

(a) ----------

(b) ----------

(c) ----------

(d) ----------

(27) What are your respnsibility in the club?

---

(28) Do you often/sometimes feel you have time to relax?

Yes [ ] No [ ]

(29) If no, what is responsible? ----------

---

(30) Has SAP (Structural Adjustment Programme) any effect on your standard of living?

Yes [ ] No [ ]

(31) What kind of food were you consuming before SAP?

---

(32) What kind of food do you consume now (with SAP)

---

(33) Has SAP led to tension within your family?

Yes [ ] No [ ]

(34) If yes, among who?

(a) Myself and Husband [ ]

(b) Myself and Wife [ ]

(c) Husband and children [ ]

(d) Wife and Children [ ]

(e) Among Children [ ]

(35) How often does this tension arise?

(a) Always [ ]

(b) Sometimes [ ]

(c) More often [ ]

(36) What is the state of security in your neighborhood?

(a) Very safe [ ]

(b) Attacks by armed robbers [ ]

(c) Noise making [ ]

(d) General Insecurity [ ]

(e) Others (specify) ----------

(37) If your neighborhood is not safe, have you ever fallen a victim (ever been attacked)? ----------

(38) Do you have hypertension?

Yes [ ] No [ ]

(39) When was your hypertention first disagnosed?

---

(40) When did you start feeling its symptoms?

---

(41) Frankly, What do you think was responsible for your being hypertensive? ----------

---

Thank you.

Appendix III

UNIVERSITY COLLEGE HOSPITAL
IBADAN, NIGERIA

Chairman,
ALHAJI (DR.) O. LADAN-BAKI, *OFR*

Telephone: Ibadan 400010
400080
Telegram: Teachos, Ibadar
Telex: 31520 NG

Our Ref: HG/CON. 88

Date: 21-02-91

Dr. Ona Soleye,
Ag. Head,
Department of Sociology,
University of Ibadan,
Ibadan.

Re: Letter of Introduction

Thank you for your letter dated 7th February 1991 wherein you requested for Mr. Aderinto to conduct a study on the "Socio-cultural and Environmental Factors of Hypertensio in Ibadan: An Epidemiological Approach".

The Head of the Department of Medicine of this hospital has no objection to Mr. Aderinto collecting the data.

On arrival in the hospital, Mr. Aderinto should show a copy of this letter to the Head of Medicine, who has, by a copy of this letter, been informed of Mr. Aderinto's research.

Dr. A. O. G. Adeuja
Chairman, Medical Advisory Committee
for: Chief Medical Director

Appendix II

UNIVERSITY OF IBADAN, NIGERIA

FACULTY OF THE SOCIAL SCIENCES

DEPARTMENT OF SOCIOLOGY

Acting Head of Department:
DR. ONA. SOLEYE
B.A., M.A., Ph. D. (Manchester)

Telephone: 414915, 412610 Ext. 287
400550-400614 Ext. 1340
Cables & Telegrams: UNIVERSITY IBADAN

28th May, 1990

The Chief Medical Director,
University College Hospital,
Ibadan.

Dear Sir,

NEED FOR ASSISTANCE

The bearer, Aderinto Adeyinka Abideen is a Post-graduate Student in this Department. He is working on "The Socio-cultural and Environmental Factors of Hypertension: An Epidemiological Approach".

As such, we would be very grateful if you could assist him as regards collection of data and access to records/statistics..

Your cooperation will be highly appreciated.

Yours sincerely,

for Dr. Ona Soleye
Acting Head of Department.
DEPARTMENT OF SOCIOLOGY
University of Ibadan